

Sequence Listing

<110> Asahi Kasei Kabushiki Kaisha

<120> High-concentration preparation of soluble thrombomodulin

<130> ASAHI-33

<150> JP2002-009951

<151> 2002-01-18

<160> 9

<210> 1

<211> 516

<212> PRT

<213> Artificial sequence

<220>

<223> Partial amino acid sequence of human-originated soluble  
thrombomodulin

<400> 1

Met Leu Gly Val Leu Val Leu Gly Ala Leu Ala Leu Ala Gly Leu Gly

1

5

10

15

Phe Pro Ala Pro Ala Glu Pro Gln Pro Gly Gly Ser Gln Cys Val Glu

20

25

30

His Asp Cys Phe Ala Leu Tyr Pro Gly Pro Ala Thr Phe Leu Asn Ala

35

40

45

Ser Gln Ile Cys Asp Gly Leu Arg Gly His Leu Met Thr Val Arg Ser

50	55	60
Ser Val Ala Ala Asp Val Ile Ser Leu Leu Leu Asn Gly Asp Gly Gly		
65	70	75
Val Gly Arg Arg Arg Leu Trp Ile Gly Leu Gln Leu Pro Pro Gly Cys		80
	85	90
Gly Asp Pro Lys Arg Leu Gly Pro Leu Arg Gly Phe Gln Trp Val Thr		95
100	105	110
Gly Asp Asn Asn Thr Ser Tyr Ser Arg Trp Ala Arg Leu Asp Leu Asn		
115	120	125
Gly Ala Pro Leu Cys Gly Pro Leu Cys Val Ala Val Ser Ala Ala Glu		
130	135	140
Ala Thr Val Pro Ser Glu Pro Ile Trp Glu Glu Gln Gln Cys Glu Val		
145	150	155
Lys Ala Asp Gly Phe Leu Cys Glu Phe His Phe Pro Ala Thr Cys Arg		160
	165	170
Pro Leu Ala Val Glu Pro Gly Ala Ala Ala Ala Val Ser Ile Thr		175
180	185	190
Tyr Gly Thr Pro Phe Ala Ala Arg Gly Ala Asp Phe Gln Ala Leu Pro		
195	200	205
Val Gly Ser Ser Ala Ala Val Ala Pro Leu Gly Leu Gln Leu Met Cys		
210	215	220
Thr Ala Pro Pro Gly Ala Val Gln Gly His Trp Ala Arg Glu Ala Pro		
225	230	235
Gly Ala Trp Asp Cys Ser Val Glu Asn Gly Gly Cys Glu His Ala Cys		240
	245	250
Asn Ala Ile Pro Gly Ala Pro Arg Cys Gln Cys Pro Ala Gly Ala Ala		255
260	265	270
Leu Gln Ala Asp Gly Arg Ser Cys Thr Ala Ser Ala Thr Gln Ser Cys		
275	280	285

Asn Asp Leu Cys Glu His Phe Cys Val Pro Asn Pro Asp Gln Pro Gly  
 290 295 300  
 Ser Tyr Ser Cys Met Cys Glu Thr Gly Tyr Arg Leu Ala Ala Asp Gln  
 305 310 315 320  
 His Arg Cys Glu Asp Val Asp Asp Cys Ile Leu Glu Pro Ser Pro Cys  
 325 330 335  
 Pro Gln Arg Cys Val Asn Thr Gln Gly Gly Phe Glu Cys His Cys Tyr  
 340 345 350  
 Pro Asn Tyr Asp Leu Val Asp Gly Glu Cys Val Glu Pro Val Asp Pro  
 355 360 365  
 Cys Phe Arg Ala Asn Cys Glu Tyr Gln Cys Gln Pro Leu Asn Gln Thr  
 370 375 380  
 Ser Tyr Leu Cys Val Cys Ala Glu Gly Phe Ala Pro Ile Pro His Glu  
 385 390 395 400  
 Pro His Arg Cys Gln Met Phe Cys Asn Gln Thr Ala Cys Pro Ala Asp  
 405 410 415  
 Cys Asp Pro Asn Thr Gln Ala Ser Cys Glu Cys Pro Glu Gly Tyr Ile  
 420 425 430  
 Leu Asp Asp Gly Phe Ile Cys Thr Asp Ile Asp Glu Cys Glu Asn Gly  
 435 440 445  
 Gly Phe Cys Ser Gly Val Cys His Asn Leu Pro Gly Thr Phe Glu Cys  
 450 455 460  
 Ile Cys Gly Pro Asp Ser Ala Leu Val Arg His Ile Gly Thr Asp Cys  
 465 470 475 480  
 Asp Ser Gly Lys Val Asp Gly Gly Asp Ser Gly Ser Gly Glu Pro Pro  
 485 490 495  
 Pro Ser Pro Thr Pro Gly Ser Thr Leu Thr Pro Pro Ala Val Gly Leu  
 500 505 510  
 Val His Ser Gly

<210> 2

<211> 1548

<212> DNA

<213> Artificial sequence

<220>

<223> Partial base sequence of human-originated soluble  
thrombomodulin gene

<400> 2

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ggccccgcga ctttcctcaa tgccagtcag atctgcgacg gactgcgggg ccacctaattg 180  
acagtgcgct ctcgggtggc tgccgatgtc atttccttgc tactgaacgg cgacggcggc 240  
gttgggccgc ggcgcctctg gatcggcctg cagctgccac ccggctgcgg cgaccccaag 300  
cgcctcgggc ccctgcgcgg cttccagtgg gttacgggag acaacaacac cagctatagc 360  
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<210> 3

<211> 132

<212> PRT

<213> Artificial sequence

<220>

<223> Partial amino acid sequence of human-originated soluble  
thrombomodulin

<400> 8

Met Leu Gly Val Leu Val Leu Gly Ala Leu Ala Leu Ala Gly Leu Gly

1 5 10 15

Phe Pro Asp Pro Cys Phe Arg Ala Asn Cys Glu Tyr Gln Cys Gln Pro

20 25 30

Leu Asn Gln Thr Ser Tyr Leu Cys Val Cys Ala Glu Gly Phe Ala Pro

35 40 45

Ile Pro His Glu Pro His Arg Cys Gln Met Phe Cys Asn Gln Thr Ala

50 55 60

Cys Pro Ala Asp Cys Asp Pro Asn Thr Gln Ala Ser Cys Glu Cys Pro

65                      70                      75                      80  
 Glu Gly Tyr Ile Leu Asp Asp Gly Phe Ile Cys Thr Asp Ile Asp Glu  
                          85                      90                      95  
 Cys Glu Asn Gly Gly Phe Cys Ser Gly Val Cys His Asn Leu Pro Gly  
                          100                      105                      110  
 Thr Phe Glu Cys Ile Cys Gly Pro Asp Ser Ala Leu Val Arg His Ile  
                          115                      120                      125  
 Gly Thr Asp Cys  
 130

<210> 4

<211> 396

<212> DNA

<213> Artificial sequence

<220>

<223> Partial base sequence of human-originated soluble  
thrombomodulin gene

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 gtctgcgccc agggcttcgc gccattccc cagagccgc acaggtgcc a gatgttttgc 180  
 aaccagactg cctgtccagc cgactgcgac cccaacaccc aggctagctg tgagtgcct 240  
 gaaggctaca tcctggacga cggtttcatc tgcacggaca tcgacgagtgc gaaaaacggc 300  
 ggcttctgct ccggggtgtg ccacaacctc cccggtacct tcgagtgc at ctgcggggccc 360  
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<210> 5

<211> 516

<212> PRT

<213> Artificial sequence

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<223> Partial amino acid sequence of human-originated soluble  
thrombomodulin

<400> 5

Met Leu Gly Val Leu Val Leu Gly Ala Leu Ala Leu Ala Gly Leu Gly

1 5 10 15

Phe Pro Ala Pro Ala Glu Pro Gln Pro Gly Gly Ser Gln Cys Val Glu

20 25 30

His Asp Cys Phe Ala Leu Tyr Pro Gly Pro Ala Thr Phe Leu Asn Ala

35 40 45

Ser Gln Ile Cys Asp Gly Leu Arg Gly His Leu Met Thr Val Arg Ser

50 55 60

Ser Val Ala Ala Asp Val Ile Ser Leu Leu Leu Asn Gly Asp Gly Gly

65 70 75 80

Val Gly Arg Arg Arg Leu Trp Ile Gly Leu Gln Leu Pro Pro Gly Cys

85 90 95

Gly Asp Pro Lys Arg Leu Gly Pro Leu Arg Gly Phe Gln Trp Val Thr

100 105 110

Gly Asp Asn Asn Thr Ser Tyr Ser Arg Trp Ala Arg Leu Asp Leu Asn

115 120 125

Gly Ala Pro Leu Cys Gly Pro Leu Cys Val Ala Val Ser Ala Ala Glu

130 135 140

Ala Thr Val Pro Ser Glu Pro Ile Trp Glu Glu Gln Gln Cys Glu Val

145 150 155 160

Lys Ala Asp Gly Phe Leu Cys Glu Phe His Phe Pro Ala Thr Cys Arg

165

170

175

Pro Leu Ala Val Glu Pro Gly Ala Ala Ala Ala Val Ser Ile Thr

180

185

190

Tyr Gly Thr Pro Phe Ala Ala Arg Gly Ala Asp Phe Gln Ala Leu Pro

195

200

205

Val Gly Ser Ser Ala Ala Val Ala Pro Leu Gly Leu Gln Leu Met Cys

210

215

220

Thr Ala Pro Pro Gly Ala Val Gln Gly His Trp Ala Arg Glu Ala Pro

225

230

235

240

Gly Ala Trp Asp Cys Ser Val Glu Asn Gly Gly Cys Glu His Ala Cys

245

250

255

Asn Ala Ile Pro Gly Ala Pro Arg Cys Gln Cys Pro Ala Gly Ala Ala

260

265

270

Leu Gln Ala Asp Gly Arg Ser Cys Thr Ala Ser Ala Thr Gln Ser Cys

275

280

285

Asn Asp Leu Cys Glu His Phe Cys Val Pro Asn Pro Asp Gln Pro Gly

290

295

300

Ser Tyr Ser Cys Met Cys Glu Thr Gly Tyr Arg Leu Ala Ala Asp Gln

305

310

315

320

His Arg Cys Glu Asp Val Asp Asp Cys Ile Leu Glu Pro Ser Pro Cys

325

330

335

Pro Gln Arg Cys Val Asn Thr Gln Gly Gly Phe Glu Cys His Cys Tyr

340

345

350

Pro Asn Tyr Asp Leu Val Asp Gly Glu Cys Val Glu Pro Val Asp Pro

355

360

365

Cys Phe Arg Ala Asn Cys Glu Tyr Gln Cys Gln Pro Leu Asn Gln Thr

370

375

380

Ser Tyr Leu Cys Val Cys Ala Glu Gly Phe Ala Pro Ile Pro His Glu



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                          405                      410                      415  
 Cys Asp Pro Asn Thr Gln Ala Ser Cys Glu Cys Pro Glu Gly Tyr Ile  
                          420                      425                      430  
 Leu Asp Asp Gly Phe Ile Cys Thr Asp Ile Asp Glu Cys Glu Asn Gly  
                          435                      440                      445  
 Gly Phe Cys Ser Gly Val Cys His Asn Leu Pro Gly Thr Phe Glu Cys  
                          450                      455                      460  
 Ile Cys Gly Pro Asp Ser Ala Leu Ala Arg His Ile Gly Thr Asp Cys  
 465                      470                      475                      480  
 Asp Ser Gly Lys Val Asp Gly Gly Asp Ser Gly Ser Gly Glu Pro Pro  
                          485                      490                      495  
 Pro Ser Pro Thr Pro Gly Ser Thr Leu Thr Pro Pro Ala Val Gly Leu  
                          500                      505                      510  
 Val His Ser Gly  
                          515

<210> 6

<211> 1548

<212> DNA

<213> Artificial sequence

<220>

<223> Partial base sequence of human-originated soluble  
thrombomodulin gene

<400> 6

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<210> 7

<211> 132

<212> PRT

<213> Artificial sequence

<220>

<223> Partial amino acid sequence of human-originated soluble  
thrombomodulin

<400> 7

Met Leu Gly Val Leu Val Leu Gly Ala Leu Ala Leu Ala Gly Leu Gly

1 5 10 15

Phe Pro Asp Pro Cys Phe Arg Ala Asn Cys Glu Tyr Gln Cys Gln Pro

20 25 30

Leu Asn Gln Thr Ser Tyr Leu Cys Val Cys Ala Glu Gly Phe Ala Pro

35 40 45

Ile Pro His Glu Pro His Arg Cys Gln Met Phe Cys Asn Gln Thr Ala

50 55 60

Cys Pro Ala Asp Cys Asp Pro Asn Thr Gln Ala Ser Cys Glu Cys Pro

65 70 75 80

Glu Gly Tyr Ile Leu Asp Asp Gly Phe Ile Cys Thr Asp Ile Asp Glu

85 90 95

Cys Glu Asn Gly Gly Phe Cys Ser Gly Val Cys His Asn Leu Pro Gly

100 105 110

Thr Phe Glu Cys Ile Cys Gly Pro Asp Ser Ala Leu Ala Arg His Ile

115 120 125

Gly Thr Asp Cys

130

<210> 8

<211> 396

<212> DNA

<213> Artificial sequence

<220>

<223> Partial base sequence of human-originated soluble  
thrombomodulin gene

<400> 8

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aaccagactg cctgtccagc cgactgcgac cccaacaccc aggctagctg tgagtgcctt 240
gaaggctaca tcctggacga cggtttcatc tgcacggaca tcgacgagtg cgaaaacggc 300
ggctttctgct ccggggtgtg ccacaacctc cccggtacct tcgagtgcac ctgcggggccc 360
gactcggccc ttgcccgcga cattggcacc gactgt 396
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<210> 9

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic DNA for mutation

<400> 9

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